

The Passivhaus Equivalent Standard

Quality Assurance & Compliance

Workshop 6 Notes



Built
Environment
—
Smarter
Transformation

16th January 2024

WORKSHOP BREAKOUT - QUALITY ASSURANCE AND COMPLIANCE	
	<p>WORKSHOP ACTIVITY</p> <p>6.1 To discuss what current and best practice looks like when assuring the quality of new building design and construction</p> <p>6.2 What are the key components of a successful project as regards delivery of energy and environmental performance?</p> <p>6.3 How do you currently demonstrate to a third party that the design and execution of a new build is delivered in a competent and informed manner to achieve the outcomes sought by building regulations?</p> <p>6.4 What methods are currently being employed to de-risk the energy-related aspects of design and construction and provide assurance that the compliant solutions are properly considered and delivered as intended?</p> <p>6.5 How could current good and best industry practice form part of a potential energy standards Compliance Plan 'plug-in'.</p> <p>6.6 What role could the current certifier of design and construction schemes play in a Passivhaus equivalent standard?</p>
	<p style="text-align: center;">1. To discuss what current and best practice looks like when assuring the quality of new building design and construction</p> <p>Quality assurance control needs to be embedded in construction</p> <p>Need to change culture of not changing SAP assessment during design</p> <p>Third party voluntary certification scheme needed</p> <p>Main contractor and sub-contractor policy, sign off inspection process</p> <p>Current best practice for design shared</p> <p>Don't over complicate messaging</p> <p>Right level of detail at all stages – consistency is the key 'golden thread'</p> <p>Not enough rigour to SAP assessment/Section 6 certification. Partly because of disconnect between contractor & design</p> <p>Design and construction continuity is best practice</p> <p>Full engagement with SME's and supply chain</p> <p>Drive the standardisation - Developers must set out current risk and quality management approach</p>

2. What are the key components of a successful project as regards delivery of energy and environmental performance?

Ensuring buy in of workforce and designers, create mutual understanding

Link verification between design and construction – site certification and evidence

Third party external verification of energy performance model, independent from design team.

Skilled design and delivery teams

Closing the performance gap – Design (verification), Modelling (software), Construction

Large scale contractor and small-scale builder corporation and understanding

Disconnect around Section 6 certification

Drawings need to be robust and detailed to allow contractor to build correctly

Components criteria needs to be clearly set, correct detailing not just U-values

Verifying against compliance and design

Mechanism for projects that don't have Section 6 certification

User education feedback

Evidence that the things you do are tried, tested and deliverable e.g. a standardisation framework that identifies and addresses risk.

Buy in to the same shared outcome, effective communication at all stages

3. How do you currently demonstrate to a third party that the design and execution of a new build is delivered in a competent and informed manner to achieve the outcomes sought by building regulations?

Engagement with Building Control and submission of appropriate evidence

Deliver as per specified design details including thermographic air tightness, testing and commissioning

A photograph isn't just a photograph, it puts onus on person to install correctly and demonstrating competence

Developers already have their own build stage checks that are thorough in addition to NHBC and Local Authority checks

4. What methods are currently being employed to de-risk the energy-related aspects of design and construction and provide assurance that the compliant solutions are properly considered and delivered as intended?

Advance MMC/PMV having a minimum level of third-party certification

Establishing the key risks and ensuring you have the right approved products

Air testing, MMC/offsite, thermal bridging calculations

Third party verification and current best practice for design

Most volume builders have a defined process for key checks at each build stage

Structural Timber Association already has an assurance system

5. How could current good and best industry practice form part of a potential energy standards Compliance Plan 'plug-in'.

Site confirmation by third party required

Site evidence, standard key state inspections. Compliance Inspectors, Building Control

Train up Building Control Officers for new section 6 Standards

Don't know what good is – what evidence is there of good practice

Everyone needs to share best practice across industry and set an intuitive process

Does a lack of standardisation risk delivery of quality homes

6. What role could the current certifier of design and construction schemes play in a Passivhaus equivalent standard?

Role of certifier, is there enough of them, how long will it take to train them, what will this look like.

Social housing demand massive how can it be done at scale

Passivhaus certifier is external and independent of design team (no allegiances)

The verifier requirement is very complex, so the individual needs to be very knowledgeable -who is the relevant person to carry out this role

Joint sign off - from frame erect to end of project

If there already is a robust process, then why would you need an independent checker

Establish a process/audit trail for all as minimum standard